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ROTODYNAMIC PUMP WITH NON-CIRCULAR HYDRODYNAMIC BEARING JOURNAL

Abstract

A blood pump incorporates a blood lubricated journal bearing that is characterized by a non-circular geometry. In one embodiment, the stationary bearing element, or stator, of the bearing is provided with a semi-elliptical shaped outer surface in an area opposite the load bearing film. The journal bearing configuration ensures that the blood flow therethrough is adequate, that the integrity of the blood is preserved and that bearing stability is maintained.